

**MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT
PROPOSED TITLE V OPERATING PERMIT TV 54-01**

24580 Silver Cloud Court
Monterey, CA 93940
Telephone: (831) 647-9411

APPLICATION RECEIVED FROM:

RMC Pacific Materials dba CEMEX
Davenport Plant
700 Highway One
Davenport, CA 95017

PLANT SITE LOCATION:

700 Highway One
Davenport, CA 95017

ISSUED BY:

Richard Stedman, Air Pollution Control Officer

July 1, 2009
Proposed Effective Date

Nature of Business: Portland Cement Manufacturing

SIC Codes: 14222- Crushed and Broken Limestone
3241- Portland Cement Manufacturing

RESPONSIBLE OFFICIAL:

Name: Mr. Kenny O'Connell
Title: Plant Superintendent
Phone: (831) 458-5775
E-Mail: kenneth.oconnell@cemex.com

ALTERNATIVE RESPONSIBLE OFFICIAL:

Name: Mr. Yogi Towne
Title: Production Superintendent
Phone: (831) 458-5712
E-Mail: yogi.towne@cemex.com

FACILITY CONTACT PERSON:

Name: Mr. Chow Yip
Title: Process Engineer
Phone: (831) 458-5790
E-Mail: chow.yip@cemex.com

TABLE OF CONTENTS

FACILITY DESCRIPTION 3

EQUIPMENT DESCRIPTION 3

FEDERALLY ENFORCEABLE EMISSION LIMITS AND STANDARDS 8

TESTING REQUIREMENTS AND PROCEDURES 12

MONITORING AND RECORD KEEPING REQUIREMENTS 14

REPORTING REQUIREMENTS 17

GENERAL CONDITIONS 20

FACILITY DESCRIPTION

RMC Pacific Materials dba CEMEX operates a portland cement manufacturing facility in Davenport, California. This facility has been in operation since 1906. The facility utilizes a Preheater/Precalciner Type Cement Kiln.

Limestone and shale are quarried at the facility location. These quarried materials along with other purchased raw materials are ground, dried and supplied in the appropriate chemical proportions to the preheater/precalciner tower and then to the rotary kiln to produce clinker. The clinker is cooled, then finish ground with additives in accordance with the final product's desired properties. The finished product is sacked or stored in silos prior to bulk shipment by truck or railcar.

The CEMEX Davenport Plant is considered a federal Major Source and subject to the Title V permitting program due to the potential to emit Oxides of Nitrogen (NO_x), Oxides of Sulfur (SO_x), Carbon Monoxide (CO), and Particulate Matter less than 10 microns in diameter (PM₁₀).

EQUIPMENT DESCRIPTION

PORTLAND CEMENT MANUFACTURING FACILITY CONSISTING OF:

1. Quarry Operations

Mobile Rotary Drill Rigs, With Filter/Clone Dust Collection Systems.

Mobile Surface Mining Equipment, Mined Material To Primary Crushing & Screening.

Primary Crushing & Screening, Vented To Baghouse Dust Collectors, Sized Material To Quarry Silos And Fines To Fines Stockpile.

Quarry Silos, Discharging Materials To Raw Materials Stockpiles Via Overland Conveyor System, Transfer Points Equipped With Baghouse Dust Collectors.

2. Raw Materials Processing Circuit

Purchased Raw Materials Unloading And Storage, Three Sided Storage Enclosure, Enclosed Drive Over Hoppers With Materials Transferred Via Belt Conveyor To Enclosed Storage Or To Storage Bins, All Storage Bins Vented To Baghouse Dust Collectors. Iron Slag Received Utilizing Coal Receiving And Storage Equipment.

Raw Materials Retrieval, Raw Materials Transferred To Raw Materials Surge Bin From Stockpiles And Storage Via Feeders And Raw Materials Feed Belt, Emission Points Vented To Baghouse Dust Collectors.

Raw Materials Mill, Raw Materials Transferred From Raw Materials Surge Bin To Roller Mill. Preheater And By-Pass Gases Combined And Vented Through Mill For Drying And Sweep Air. Mill Equipped With Double Cone Type Classifier Discharging To Main Electrostatic Precipitator (ESP).

Mill Booster Air Heater, 25 MMBTU/Hr Heat Input, Fired On Natural Gas Or On #2 Fuel Oil.

Homo Silos, Pneumatic Mixing Chamber Silo Systems, Receiving Raw Materials From the Main ESP Via Screw Conveyors, Drag Conveyors, Bucket Elevators, And Homo Feed Elevator, Emission Points Vented To Baghouse Dust Collectors.

Kiln Feed Surge Bin, Receiving Material From Homo Silos Via Airslides And Bucket Elevators, Emission Points Vented To Baghouse Dust Collectors.

Kiln Feed, Receiving Material From Kiln Feed Surge Bin Via Airslides And Discharging Material Via Airslide Into The Riser Of Stage II Suspension Preheater; Or The Iron Ore May Be Introduced Directly Into The Precalciner Riser Section Via Conveyors And Double Tipping Valve, Emission Points Vented To Baghouse Dust Collectors.

3. Coal Circuit

Coal Receiving And Storage, Enclosed 50 Ton Drive Over Railcar Receiving Hopper Transferring Coal Via Belt Feeder, Belt Conveyor, And Stacker To Coal Storage Pile. Emissions Controlled By Chemical Dust Suppression System With Spraybars At Each Transfer And Loadout Point, And By Baghouse Dust Collector With Pickup Points At Belt Feeder And Belt Conveyor Transfer Points. The Receiving System Is Also Used For Railcar Delivery Of Iron Ore, Gypsum, And Other Process Raw Materials.

Coal Reclaim, Transferring Coal To Coal Bin From Coal Storage Pile Via Underpile Vibrating Feeders, Pocket Belt Conveyor, Screen And Coal Belt. Emissions Controlled From Pocket Belt Transfer, Screen, Coal Belt And Coal Bin By Baghouse Dust Collector.

Coal Mill, Discharge From Coal Bin Via Weigh Feeder To CE Raymond Triple Gate Feeder Bowl Mill. Coal Mill Hot Air Obtained From Clinker Cooler Drop Out Box, With Two Ambient Air Bleed In Dampers For Temperature Control, For Coal Drying And Conveying Of Pulverized Coal Through The Mill. Mill Discharge To High Efficiency Cyclone Collector With Separated Material To Pulverized Coal Bin And Air Stream To Coal Mill Baghouse Dust Collectors.

Coal Feed, Coal Provided To Precalciner And Kiln From Pulverized Coal Bin Via Feed Screws And Feed Pumps Which Are Vented To Baghouse Dust Collectors.

4. Alkaline Slurry Preparation System, 150 Ton Lime Storage Silo Equipped For Pneumatic Delivery And Vented To Baghouse Dust Collector, Providing Lime Via Ball Mill And Vibrating Screen To 4000 Gallon Alkaline Slurry Tank. Alkaline Slurry Provided To Main Conditioning Tower And To Roller Mill For SO_x Control.

5. Cement Clinkering Process

Suspension Preheater With Precalciner:

Two First Stage Cyclones In Parallel, Each 15' 6" Diameter.

Second, Third, And Forth Stage Cyclones In Series, Each 22' 7" Diameter.

Precalciner, 41' High, 18' Diameter Cylindrical Section. Coal Introduced By Pneumatic Feed Pump, 250 MMBTU/Hr Maximum Heat Input. Number 2 Fuel Oil Standby. Gases Discharged From Rotary Kiln Vented Through Precalciner Providing Partial Combustion Air And Kiln Feed/Coal Mixing. Additional Combustion Air From Clinker Cooler.

Hauck 21 MMBTU/Hr Number 2 Oil Fired Precalciner Start-Up Burner.

Weishaupt 7.4 MMBTU/Hr Number 2 Oil Fired Precalciner Pilot Burner.

Conditioning Tower Between Discharge From First Stage Cyclones and Raw Mill Equipped With Alkaline Slurry Injection System For SO₂ Control.

Preheater Fan With 1600 Hp Motor Located Between Conditioning Tower And Raw Mill Prior To Combination With Bypass Duct.

Rotary Kiln:

13' Diameter By 183' 8" Long Rotary Kiln.

6" I.D. Straight Burner Pipe Used To Introduce Coal, 150 MMBTU/Hr Maximum Heat Input. Number 2 Fuel Oil Standby. Secondary Combustion Air From Clinker Cooler.

80 MMBTU/Hr Number 2 Oil Fired Kiln Start-Up Burner

Clinker Cooler:

Reciprocating Grate Cooler, With Eight Cooler Fans (Seven Online And One Backup).

Closed Loop Cooler Air Heat Exchange Circuit With Double Pass Air To Air Heat Exchanger, And Ten Module Gravel Bed Filter With Two 30 Hp Backflush Fans, 900 Hp Cooler Recirculation Fan With Bleed In Air Damper, And Discharging To The Intake Of Five Cooler Fans. Two Cooler Fans Have Atmospheric Intake Which Provides Secondary And Tertiary Combustion Air And Coal Mill Sweep Air To Closed Loop Cooler Air Heat Exchange Circuit.

Material Removed By Gravel Bed Filter And Heat Exchanger Drop Out Are Transferred To Clinker Circuit.

Clinker Breaker, 36" x 126" Hammermill With 50 Hp Motor.

12' x 80' Clinker Cooler Drag Conveyor.

Preheater Bypass Circuit:

Bypass Opening In Rotary Kiln Riser Duct Before Precalciner To Divert Kiln Gases To The Bypass Circuit For The Purpose Of Removing Particulate To Control Clinker Alkali Content.

150 Hp Quench Air Fan.

Mixing Chamber.

Bypass Conditioning Tower With Water Spray.

Environmental Elements Corporation Electrostatic Precipitator, Single Chamber With 34 Gas Passages On 10" Centers And 5 Fields, Each 9' In Length And 36' Field Height. Collected Material To Waste Dust Circuit.

900 Hp Bypass Precipitator I.D. Fan Discharging To Combine With Preheater Gases Downstream Of Preheater Fan And Before Raw Mill.

Main Electrostatic Precipitator (ESP)

Combined Preheater And Bypass Gases Passed Through Raw Mill Or Bypassing Raw Mill To Main ESP.

Environmental Elements Corporation Electrostatic Precipitator, Single Chamber With 58 Gas Passages On 10" Centers And 5 Fields, Each 9' In Length And 36' Field Height. Collected Material To Homo Silos.

3100 Hp Precipitator I.D. Fan With Discharge To 200 Foot Exhaust Stack.

Continuous Emission Monitoring System:

Lear Siegler Model RM-41 Transmissometer, Or Equivalent.

Lear Siegler Model SM-810, Measuring SO_x And NO_x, Or Equivalent.

Teledyne Hastings Model AFI-6KL Pitot Tube Flow Meter, Or Equivalent.

6. Clinker Circuit

Fringe Clinker Bin, 200 Ton, Receiving Clinker From Clinker Cooler Via Vibrating Feeder, Bucket Elevator, And Drag Conveyor. All Emission Points Vented To Baghouse Dust Collectors.

Clinker Storage Building, Receiving Clinker From Fringe Clinker Bin Via Conveyors And Bucket Elevators. All Emission Points Vented To Baghouse Dust Collectors.

Clinker Reclaim, Retrieval Of Clinker From Clinker Storage Building Via Underfloor Vibrating Feeders, Conveyors And Bucket Elevators. All Emission Points Vented To Baghouse Dust Collectors.

Two Clinker Storage Bins, 450 Ton Each, Receiving Clinker From Clinker Reclaim. Clinker Bins Vented To Baghouse Dust Collectors.

7. Waste Dust Circuit

Dust Bin, 50 Ton, Receiving Waste Dust From The Bypass ESP And The Bypass Conditioning Tower. Dust Bin Vented To Baghouse Dust Collector.

Waste Dust Disposal, Discharge From Dust Bin To Truck Load Out Spout Via Screw Conveyor Or To Portable Storage Tanks Or To Pug Mill For Combination With Water Prior To Pumping To Slurry Pond. All Emission Points Vented To Baghouse Dust Collectors.

8. Cement Circuit

Gypsum/Limestone And Other Blending Materials Unloading And Storage, Materials Transferred To Gypsum/Limestone And Synthetic Gypsum Storage Bins Via Truck Unloading Hopper, Pocket Belt Conveyor And Bucket Elevator. All Emission Points Vented To Baghouse Dust Collectors.

Finish Mills, Two Aerofall Mills Limited Cement Grinding Ball Mills, Receiving Clinker From Clinker Storage Bins And Gypsum And/Or Limestone And/Or Other Blending Materials From Gypsum/Limestone/Synthetic Gypsum Storage Bins Via Separate Feeders And Finish Mill Feed Conveyor, Discharging To Surge Bin Via Air Separator And Cement Cooler Or Via Optional Cement Cooler Bypass Circuit Or Via Air Separator Bypass Circuit. Surge Bin Feeding Pneumatic Pump To Fringe Bin Or To Bulk Cement Silos. All Emission Points Vented To Baghouse Dust Collectors.

Bulk Cement Silos, Ten 80,300 Ft³ Capacity Silos, Receiving Cement From The Finish Mills Via Pneumatic Pumps. All Emission Points Vented To Baghouse Dust Collectors.

Bulk Loadout, Cement Transferred Pneumatically Or Via Bucket Elevators From Bulk Cement Silos To Eight Bulk Storage Tanks Prior To Truck/Railcar Loadout. All Emission Points Vented To Baghouse Dust Collectors.

9. Ancillary Equipment:

Abrasive Blasting Equipment.

Gasoline Dispensing Facility.

Laboratory Fume Hoods.

Portable Compressor.

Portable Generator.

Portable Material Screen.

FEDERALLY ENFORCEABLE EMISSION LIMITS AND STANDARDS

1. All equipment facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [July 31, 1991 PSD Permit, District Rule 207]
2. RMC Pacific Materials dba CEMEX shall operate and maintain fabric dust collectors to control particulate emissions from the following areas of the facility [July 31, 1991 PSD Permit]:

a)	Sand Bin	04-036
b)	Iron Ore Bin	04-038
c)	Raw Material Transfer	04-005
d)	Roller Mill Surge Bin	05-100
e)	Coal Conveyor Transfer	06-321
f)	Kiln Feed & Homo Silos	07-481
g)	Kiln Feed System	07-423
h)	Clinker Handling	07-573
i)	Coal Bin	07-701
j)	Coal Processing	07-723
k)	Clinker & Gypsum Bins & Elevators	08-824
l)	Finish Mill Airslides & Elevators	08-870
m)	Air Separator	08-865
n)	Truck Load Out	(68, 69, 70, 71)
3. RMC Pacific Materials dba CEMEX shall operate and maintain pressure gauges on each compartment of each dust collector required under Condition 2 above. [July 31, 1991 PSD Permit]
4. RMC Pacific Materials dba CEMEX shall utilize and maintain an earthen berm and biological wind break for the active and inactive coal piles and a dust suppression system for the coal receiving, handling and storage areas. [July 31, 1991 PSD Permit and District Rule 207]
5. RMC Pacific Materials dba CEMEX shall utilize and maintain an alkaline slurry injection system (ASIS) for control of SO₂ emissions from the kiln. The slurry produced shall consist of at least 12 percent solids and shall consist of slaked lime or equivalent material which has been approved by the District. The ASIS shall be operated to the extent possible to maintain SO₂ emissions below 102.3 pounds per hour: [July 31, 1991 PSD Permit and District Rule 207]

a)	at all times the raw mill is not operating except during kiln start-up, on which occasions the ASIS shall be operated as soon as the kiln feed rate reaches 100 tons per hour; and
b)	at all times the SO ₂ mass emission rate equals or exceeds 102.3 pounds sulfur dioxide per hour from the main stack, including during start-up.
6. RMC Pacific Materials dba CEMEX shall consume no more than 394 tons per day of coal on a daily maximum average and no more than 357 tons per day of coal on an annual average basis. [July 31, 1991

PSD Permit]

7. The sulfur content of the coal combusted shall not exceed 1.4% by weight on a weekly average or 1.25% by weight on an annual average. [July 31, 1991 PSD Permit And Rule 207]
8. Clinker production at the Davenport Cement Plant shall be limited to 7920 hours per year. [July 31, 1991 PSD Permit]
9. RMC Pacific Materials dba CEMEX shall not discharge or cause the discharge into the atmosphere from the main electrostatic precipitator stack: [July 31, 1991 PSD Permit, District Rule 207, And 40 CFR Part 63, Subpart LLL]
 - a) particulate matter in excess of 0.30 pounds per ton of feed to the kiln, as measured using 40 CFR Part 60, Appendix A Reference Method 5;
 - b) particulate matter in excess of 40 lb/hr;
 - c) visible emissions which is as dark or darker than Ringelmann 1 or equivalent 20% opacity;
 - d) oxides of nitrogen (measured as NO₂) in excess of 250 pounds per hour on a running 24 hour average;
 - e) oxides of nitrogen (measured as NO₂) in excess of 350 pounds per hour on a running 2 hour average;
 - f) sulfur dioxide in excess of 250 lbs/hr on a running 24 hour average; and
 - g) sulfur dioxide in excess of 300 lbs/hr on a running 2 hour average.
10. RMC Pacific Materials dba CEMEX shall not discharge or cause the discharge into the atmosphere from the main electrostatic precipitator stack any gases which contain Dioxins and Furans (D/F) in excess of: [40 CFR Part 63, Subpart LLL]
 - a) 0.20 ng per dscm (8.7×10^{-11} gr per dscf) (TEQ) corrected to 7 percent oxygen; or
 - b) 0.40 ng per dscm (1.7×10^{-10} gr per dscf) (TEQ) corrected to 7 percent oxygen, when the average temperature at the inlet to the particulate matter control device is 204 °C (400 °F) or less.
11. RMC Pacific Materials dba CEMEX shall limit their shale usage to the lower sulfur content “tan” shale at all times the sulfur dioxide emissions from the main stack exceed 91.9 pounds per hour. Tan shale shall be defined as that identified by RMC Pacific Materials dba CEMEX to have an average SO₃ content of 0.37 percent with a standard deviation of 0.67 percent. [District Rule 207]
12. No air contaminant shall be discharged into the atmosphere from any quarry operations prior to the raw

material storage areas for a period or periods aggregating more than three (3) minutes in any one (1) hour which is as dark or darker than Ringelmann 1 or equivalent 20% opacity. [District Rule 400]

13. Visible emissions from any process equipment, dust collector, or storage area, except the main stack and those specified in Condition 12 shall not exceed the following criteria: [July 31, 1991 PSD Permit, District Rule 400, And 40 CFR Part 63, Subpart LLL]
 - a) 10 percent opacity or greater, as determined by averaging 24 consecutive observations, made at 15 second intervals; and
 - b) 20 percent opacity or greater for any period or periods aggregating more than 3 minutes in any one hour.
14. Materials collected in the baghouse dust collectors must be discharged only into closed containers. [District Rule 207]
15. The coal and raw material storage piles shall be shaped so as to minimize exposure to the wind, and to minimize dust entrainment. [District Rule 207]
16. Particulate matter from the coal mill baghouse dust collector shall not exceed 0.031 grains per standard dry cubic foot. [40 CFR Part 60, Subpart Y]
17. Particulate matter shall not exceed 0.15 grains per standard dry cubic foot in any exhaust stream. [District Rule 403]
18. Particulate matter from any exhaust stream shall not exceed the lesser of 40 pounds per hour or the pound per hour limit established by the following mass emission limit equation [District Rule 403]:
$$E = 4.10 P^{0.67}$$

where:
E = rate of emission in pounds per hour
P = process weight rate in tons per hour
19. The sulfur content on any fuel oil used at the facility shall not exceed 0.5 percent by weight. [District Rule 412]
20. The sulfur content on any gaseous fuel used at the facility shall not contain sulfur compounds, calculated as hydrogen sulfide at standard conditions, in excess of 50 grains per 100 cubic feet. [District Rule 412]
21. RMC Pacific Materials dba CEMEX' gasoline storage tanks shall be equipped with permanent submerged fill pipes. [District Rule 418]

22. RMC Pacific Materials dba CEMEX shall prevent the emission of 95 percent by weight of the gasoline vapors displaced during the filling of the storage tanks at the gasoline dispensing facility by the use of Phase I Vapor Recovery. [District Rule 418]
23. RMC Pacific Materials dba CEMEX shall limit emissions of volatile organic compounds from the use of architectural coatings pursuant to the requirements of District Rule 426. [District Rule 426]
24. RMC Pacific Materials dba CEMEX shall limit emissions of volatile organic compounds during solvent cleaning and degreasing operations pursuant to the requirements of District Rule 433. [District Rule 433]
25. RMC Pacific Materials dba CEMEX shall operate the in-line kiln/raw mill, such that: [40 CFR Part 63, Subpart LLL]
 - a) When the raw mill is operating, the temperature limit established during the performance test required by Condition 35 at the inlet to the main ESP when the raw mill was operating is not exceeded.
 - b) When the raw mill is not operating, the temperature limit established during the performance test required by Condition 35 at the inlet to the main ESP when the raw mill was not operating, is not exceeded.
26. RMC Pacific Materials dba CEMEX shall have in place a District approved operations and maintenance plan for all equipment subject to the requirements of 40 CFR Part 63, Subpart LLL. This plan shall include all items required by 40 CFR §63.1350(a) and 40 CFR §63.6(e)(3). Failure to comply with any provisions of this operations and maintenance plan shall be a violation of the standard. [40 CFR Part 63, Subpart LLL]
27. RMC Pacific Materials dba CEMEX shall conduct an inspection of the components of the combustion system of the in-line kiln/raw mill at least once per year. [40 CFR Part 63, Subpart LLL]
28. RMC Pacific Materials dba CEMEX is required to repeat the performance tests required by Conditions 34 and 35 within 90 days of initiating any significant change in the feed or the fuel used in the previous performance test. [40 CFR Part 63, Subpart LLL]
29. Upon detection of an excursion as defined in condition 50, RMC Pacific Materials dba CEMEX shall restore the ESP to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. [40 CFR Part 64]
30. RMC Pacific Materials dba CEMEX shall submit a Compliance Assurance Monitoring Quality Improvement Plan (QIP) to the District as specified in 40 CFR §64.8 if the accumulation of excursions monitored under condition 50 exceed 5 percent of the ESP's operating time for a reporting period. [40 CFR Part 64]

31. Should the facility, as defined in 40 CFR §68.3 become subject to Part 68, then RMC Pacific Materials dba CEMEX shall submit a risk management plan (RMP) by the date specified in 40 CFR §68.10. Once subject to Part 68, RMC Pacific Materials dba CEMEX shall certify compliance with these requirements as part of the annual compliance certification required by 40 CFR Part 70 and this permit. [40 CFR Part 68]
32. RMC Pacific Materials dba CEMEX shall comply with the requirements of 40 CFR Part 82 - Protection of Stratospheric Ozone. [40 CFR Part 82]

TESTING REQUIREMENTS AND PROCEDURES

33. RMC Pacific Materials dba CEMEX shall conduct testing weekly, in accordance with the current ASTM Standard Method D3177 or equivalent method approved by EPA to verify compliance with Condition 7. [July 31, 1991 PSD Permit]
34. RMC Pacific Materials dba CEMEX shall conduct testing semi-annually and at other times as specified by EPA, in accordance with the methodology contained in EPA Methods 1-7 (or equivalent) to verify compliance with the emission limits contained in Condition 9(a) and (b), and to verify the accuracy of the continuous in-stack monitoring instrumentation. The District and EPA shall be notified at least 30 days in advance of the testing to allow an observer to be present and the report of results shall be transmitted to the District as soon as they are available. Based on the development of an emissions history, the District may allow a reduction in the frequency of emission testing to one test per year. [July 31, 1991 PSD Permit and District Rule 207]
35. No later than December 6, 2002 for the initial test and every 30 months thereafter, RMC Pacific Materials dba CEMEX shall conduct testing in accordance with the methodology contained in EPA Method 23 to verify compliance with the emission limits contained in Condition 10. RMC Pacific Materials dba CEMEX shall demonstrate compliance by conducting separate performance tests while the raw mill of the in-line kiln/raw mill is under normal operating conditions and while the raw mill of the in-line kiln/raw mill is not operating. [40 CFR Part 63, Subpart LLL]
 - a) Each performance test shall consist of three separate runs; each run shall be conducted under the conditions that exist when the equipment is operating at the highest load or capacity level reasonably expected to occur. The duration of each run shall be at least three hours and the sample volume for each run shall be at least 2.5 dscm (90 dscf). The concentration shall be determined for each run and the arithmetic average of the concentrations measured for the three runs shall be calculated and used to determine compliance.
 - b) The temperature of the exhaust gases from the in-line kiln/raw mill at the inlet to the main ESP must be continuously recorded during the period of the Method 23 test, and the continuous temperature records must be included in the performance test report.
 - c) One-minute average temperatures must be calculated for each minute of each run of the test.
 - d) The run average temperature must be calculated for each run, and the average of the run temperatures must be determined and included in the performance test report and will determine

the applicable temperature limit for Condition 25.

36. RMC Pacific Materials dba CEMEX shall conduct testing semi-annually, in accordance with the methodology contained in EPA Method 22 for all non-point sources. This testing will be the basis for determining compliance with Conditions 12 and 13.

If no emissions are observed utilizing Method 22, the non-point source shall be deemed to be in compliance with condition 12 and 13.

If emissions are observed from any non-point sources and that non-point source is not operating under breakdown condition as defined in and allowed for in District Rule 214, RMC Pacific Materials dba CEMEX shall conduct testing on that non-point source within 24 hours of the Method 22 testing in accordance with EPA Method 9 to verify compliance with Condition 13(a) and the methodology contained in EPA Method 9 and the averaging/aggregating period contained in District Rule 400 to verify compliance with Conditions 12 and 13(b) for that non-point source. [District Rule 218]

37. RMC Pacific Materials dba CEMEX shall conduct testing monthly, in accordance with the methodology contained in EPA Method 22 (with the exception that the observation period shall be one minute) for all point sources with the exception of the finish mill sweep and air separator bag houses. This testing will be the basis for determining compliance with Conditions 12, 13, 16, 17 and 18. [District Rule 218 and 40 CFR Part 63, Subpart LLL]

If no emissions are observed utilizing Method 22, the point source shall be deemed to be in compliance with Conditions 12, 13, 16, 17 and 18.

If no visible emissions are observed in six consecutive monthly tests for any point source, RMC Pacific Materials dba CEMEX may decrease the frequency of testing from monthly to semi-annually for that point source. If visible emissions are observed during any semi-annual test, RMC Pacific Materials dba CEMEX must resume testing that point source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

If no visible emissions are observed during the semi-annual test for any point source, RMC Pacific Materials dba CEMEX may decrease the frequency of testing from semi-annually to annually for that point source. If visible emissions are observed during any annual test, RMC Pacific Materials dba CEMEX must resume testing that point source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

If emissions are observed from any point source and that point source is not operating under breakdown condition as defined in and allowed for in District Rule 214, RMC Pacific Materials dba CEMEX shall conduct testing on that point source:

- 1) within one hour of the Method 22 testing in accordance with EPA Method 9 to verify compliance with Condition 13(a) and with the methodology contained in EPA Method 9 and the averaging/aggregating period contained in District Rule 400 to verify compliance with Conditions 12 and 13(b); and
- 2) within 30 days of the Method 22 testing in accordance with EPA Method 5 or 5D to verify compliance with the requirements of Conditions 16, 17 and 18.

38. RMC Pacific Materials dba CEMEX shall conduct testing daily, in accordance with the methodology contained in EPA Method 22 for the finish mill sweep and air separator bag houses. The Method 22 test shall be conducted while the affected source is operating at the highest load or capacity level reasonable expected to occur within the day. This testing will be the basis for determining compliance with Conditions 12, 13, 16, 17 and 18. [District Rule 218 and 40 CFR Part 63, Subpart LLL]

If no emissions are observed utilizing Method 22, the point source shall be deemed to be in compliance with Conditions 12, 13, 16, 17 and 18.

If emissions are observed from the finish mill sweep and air separator bag houses and that source is not operating under breakdown condition as defined in and allowed for in District Rule 214, RMC Pacific Materials dba CEMEX shall conduct testing on that source:

- 1) within one-hour, the corrective actions specified in the site specific operating and maintenance plan developed in accordance with Condition 26; and
 - 2) within 24 hours of the Method 22 testing in accordance with EPA Method 9 to verify compliance with Condition 13(a) and with the methodology contained in EPA Method 9 and the averaging/aggregating period contained in District Rule 400 to verify compliance with Conditions 12 and 13(b). The duration of the Method 9 test shall be thirty minutes; and
 - 3) within 30 days of the Method 22 testing in accordance with EPA Method 5 or 5D to verify compliance with the requirements of Conditions 16, 17 and 18.
39. No testing is specified for the (Rule 412) fuel sulfur content limit in Condition 19 as compliance with this condition will be verified by the fuel sulfur content reports to be provided by the fuel supplier. If testing is conducted for Condition 19, RMC Pacific Materials dba CEMEX should conduct testing in accordance with ASTM D1552-83, ASTM D1266-87 or ASTM D2622-87. [District Rule 218]
40. No testing is specified for the sulfur content of gaseous fuels as long as the only gaseous fuel fired is pipeline quality natural gas. If the facility fires other gaseous fuels, RMC Pacific Materials dba CEMEX shall maintain fuel sulfur content reports to be provided by the fuel supplier or shall conduct testing of all gaseous fuel deliveries in accordance with ASTM D 1072-80, ASTM D 3031-81, ASTM D 3246-81 or SCAQMD Method 307-91 to verify compliance with Condition 20.

MONITORING AND RECORD KEEPING REQUIREMENTS

41. RMC Pacific Materials dba CEMEX shall maintain on file the following information for each day of operation and shall make the data available to the District upon request: [District Rule 207]
- a) maximum 24 hour average NO_x emission rate, pounds NO_x per hour;
 - b) maximum 2 hour average NO_x emission rate, pounds NO_x per hour, occurring during the 24 hour period of 8:00am to 8:00am;

- c) maximum 24 hour average SO₂ emission rate, pounds SO₂ per hour;
 - d) maximum 2 hour average SO₂ emission rate, pounds SO₂ per hour, occurring during the 24 hour period of 8:00am to 8:00am;
 - e) daily average SO₃ percent in kiln feed;
 - f) average daily kiln feed rate, tons per hour;
 - g) hours of daily kiln operation, hours;
 - h) hours of daily raw mill operation, hour; and
 - i) hours of daily Alkaline Slurry Injection System operation.
42. RMC Pacific Materials dba CEMEX shall monitor and record the flow rate in gallons per minute, of slurry and water used in the ASIS on a continuous basis, and shall determine the percent solids in the slurry on a daily basis to verify compliance with Condition 5 and shall make these records available to the District upon request. [District Rule 207]
43. RMC Pacific Materials dba CEMEX shall maintain permanent records of the quantity of coal combusted to verify compliance with Condition 6. These records shall be made available, upon request, to the District, the ARB, and the EPA. [July 31, 1991 PSD Permit]
44. RMC Pacific Materials dba CEMEX shall maintain permanent records of the sulfur content of the coal combusted to verify compliance with the requirements of Condition 7. These records and the testing required by Condition 32 shall be made available, upon request, to the District, the ARB, and the EPA. [July 31, 1991 PSD Permit]
45. RMC Pacific Materials dba CEMEX shall maintain and operate the following continuous emissions monitoring (CEM) systems in the main stack: [July 31, 1991 PSD Permit, District Rule 207, and 40 CFR Part 63, Subpart LLL for the COM]
- a) A system to measure SO₂ and NO_x concentrations. The system shall meet EPA monitoring performance specifications (40 CFR 60.13 and 40 CFR Part 60 Appendix B, Performance Specifications 2, 3, and 4).
 - b) A system to measure volumetric flow rate. The system shall meet EPA performance specifications (40 CFR Part 52, Appendix E).
 - c) A transmissometer system for continuous measurement of opacity. The system shall meet EPA monitoring performance specifications (40 CFR Part 60.13 and 40 CFR Part 60, Appendix B, Performance Specification 1).
46. RMC Pacific Materials dba CEMEX shall maintain a system for monitoring compliance with the emission limits specified in Condition 9(c) through (f), using the data from the in-stack monitoring instrumentation.

Excess emissions indicated by the CEM system shall be considered violations of the applicable emission limit for the purposes of this permit. [July 31, 1991 PSD and District Rule 207]

47. RMC Pacific Materials dba CEMEX shall maintain records showing the quantity of all gasoline delivered to the gasoline storage tanks. [District Rule 418]
48. RMC Pacific Materials dba CEMEX shall maintain a monthly log of the facility-wide total volume of make-up solvent used, and waste solvent disposed of or recycled, for all cleaning devices using volatile organic compounds for solvent cleaning and degreasing. [District Rule 433]

The record keeping provisions of this condition do not apply to remote reservoir cold cleaners which are serviced by an independent contractor. For such remote cold cleaners, evidence of service shall be maintained.

49. RMC Pacific Materials dba CEMEX shall monitor D/F emissions in accordance with the following: [40 CFR Part 63, Subpart LLL]
- a) RMC Pacific Materials dba CEMEX shall install, calibrate, maintain, and continuously operate a continuous monitor to record the temperature of the exhaust gases from the in-line kiln/raw mill at the inlet to, or upstream of, the main ESP.
 - i) The recorder response range must include zero and 1.5 times the average temperatures established according to the requirements of Condition 35.
 - ii) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternative reference, subject to approval by the District.
 - b) RMC Pacific Materials dba CEMEX shall monitor and continuously record the temperature of the exhaust gases from the in-line kiln/raw mill at the inlet to the main ESP.
 - c) The three-hour rolling average temperature shall be calculated as the average of 180 successive one-minute average temperatures.
 - d) Periods of time when one-minute averages are not available shall be ignored when calculating three-hour rolling averages. When one-minute averages become available, the first one-minute is added to the previous 179 values to calculate the three-hour rolling average.
 - e) When the operating status of the raw mill of the in-line kiln/raw mill is changed from off to on, or from on to off the calculation of the three-hour rolling average temperature must begin anew, without considering previous recordings.
 - f) The calibration of all thermocouples and other temperature sensors shall be verified at least once every three months.
50. RMC Pacific Materials dba CEMEX shall maintain the following compliance assurance monitoring as specified below [40 CFR Part 64]:

- a) The opacity of the main electrostatic precipitator (ESP) exhaust shall be monitored and recorded at least once every 15 minutes when the ESP is operational. An excursion from the monitoring parameter is defined as any recorded reading being greater than 15 percent opacity. A continuous opacity monitor (COM) will be utilized for the monitoring with the collected data averaged over a 15-minute period.
51. As applicable RMC Pacific Materials dba CEMEX shall maintain the following general records of required monitoring information [July 31, 1991 PSD Permit and District Rule 218]:
- a) the date and time of sampling or measurements;
 - b) the date(s) analyses were performed;
 - c) the company or entity that performed the analyses;
 - d) the analytical techniques or methods used;
 - e) the results of such analyses;
 - f) the operating conditions existing at the time of sampling or measurement; and
 - g) the records of quality assurance for continuous monitoring systems (including, but not limited to quality control activities, audits, and calibration drift checks) and source testing methods.
52. RMC Pacific Materials dba CEMEX shall maintain records on the occurrence and duration of any startup or shutdown resulting from a malfunction in the operation of the control equipment under this permit. [District Rule 218]
53. RMC Pacific Materials dba CEMEX shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring, sample collection, measurement, report, and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [District Rule 218]

REPORTING REQUIREMENTS

54. RMC Pacific Materials dba CEMEX shall notify the EPA Regional Administrator by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable mass emissions limit stated in this permit. In addition, the EPA Regional Administrator shall be notified in writing within fifteen (15) days of any such failure. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed in this permit, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [July 31, 1991 PSD Permit]
55. RMC Pacific Materials dba CEMEX shall orally notify the District as soon as it learns that the emissions from the main stack equal or exceed the emission limits set forth in Condition 9. Such notification shall be followed within 5 days follow the conclusion of the event by a written report specifying the duration of the

event, maximum and average emission levels during the event, and the cause and remedy. [District Rule 207]

56. RMC Pacific Materials dba CEMEX shall submit a written report of all excess emissions to EPA (Attn: A-3-3) for every calendar quarter. The report shall include the following: [July 31, 1991 PSD Permit]
- a) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.
 - b) Specific identification of each period of excess emissions that occurs during start-ups, shutdowns, and malfunctions of the kiln system. The nature and cause of any malfunction (if known) and the corrective action taken or preventive measures adopted shall also be reported.
 - c) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs and adjustments.
 - d) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information shall be stated in the report.
57. RMC Pacific Materials dba CEMEX shall report all breakdowns which results in the inability to comply with any emission standard or requirement contained on this permit to the Air Pollution Control Officer (APCO) within 1 hour of the occurrence, this one hour period may be extended up to six hours for good cause by the APCO. The APCO may elect to take no enforcement action if RMC Pacific Materials dba CEMEX demonstrates to the APCO's satisfaction that a breakdown condition exists.
- The estimated time for repair of the breakdown shall be supplied to the APCO within 24 hours of the occurrence and a written report shall be supplied to the APCO with 5 days after the occurrence has been corrected. This report shall include at a minimum [District Rule 214]:
- a) a statement that the condition or failure has been corrected and the date of correction; and
 - b) a description of the reasons for the occurrence; and
 - c) a description of the corrective measures undertaken and/or to be undertaken to avoid such an occurrence in the future; and
 - d) an estimate of the emissions caused by the condition or failure.
58. Any time an action taken by RMC Pacific Materials dba CEMEX during a startup, shutdown or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the plan required by Condition 26, RMC Pacific Materials dba CEMEX shall make an immediate report of the actions taken for that event within 2 working days, by telephone call or facsimile transmission. The immediate report shall be followed by a letter, certified by the responsible official, explaining the circumstances of the event, the reasons for not following the plan, and whether any excess emissions and/or

parameter monitoring exceedances are believed to have occurred. [40 CFR Part 63, Subpart LLL]

59. RMC Pacific Materials dba CEMEX shall submit semiannual monitoring reports to the District, in a District approved format, no later than August 15 for the period of January 1 through June 30 and no later than February 15 for the period of July 1 through December 31. [District Rule 218]

These monitoring reports shall include at a minimum:

- a) the time intervals, date and magnitude of excess emissions, nature and cause of the excess (if known), corrective actions and preventative measures adopted; and
- b) the averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard for the pollutant in question; and
- c) all information pertaining to any monitoring as required by the permit; and
- d) a negative declaration specifying when no excess emissions occurred.

60. RMC Pacific Materials dba CEMEX shall submit semiannual summary reports to the District no later than August 15 for the period of January 1 through June 30 and no later than February 15 for the period of July 1 through December 31. [40 CFR Part 63, Subpart LLL]

These summary reports shall include at a minimum:

- a) all exceedances of the maximum control device inlet gas temperature limits as specified in Condition 25; and
- b) all failures to calibrate thermocouples and other temperature sensors as required by Condition 49(a); and
- c) the results of the combustion system component inspections conducted during the reporting period as required by Condition 27; and
- d) all failures to comply with any provision of the operation and maintenance plan required by Condition 26.

61. RMC Pacific Materials dba CEMEX shall submit an annual compliance certification report to the District and U.S. EPA, in a District approved format, no later than February 15 for the period of January 1 through December 31 of the preceding year. [District Rule 218]

This report shall include a written statement from the responsible official which certifies the truth, accuracy, and completeness of the report and shall include at a minimum:

- a) identification of each term or condition of the permit that is the basis of the certification; and
- b) the compliance status; and

- c) whether compliance was continuous or intermittent; and
- d) the method(s) used for determining the compliance status of the source, currently and over the reporting period.

GENERAL CONDITIONS

- 62. RMC Pacific Materials dba CEMEX shall comply with all conditions of this federal operating permit. Any noncompliance with a permit condition constitutes a violation of the Federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [District Rule 218]
- 63. In an enforcement action, the fact that RMC Pacific Materials dba CEMEX would have to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit is not a defense. [District Rule 218]
- 64. This permit may be modified, revoked, reopened and reissued, or terminated for cause as determined by the District. The filing of a request by RMC Pacific Materials dba CEMEX for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 218]
- 65. This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. [District Rule 218]
- 66. RMC Pacific Materials dba CEMEX shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, RMC Pacific Materials dba CEMEX shall also furnish to the District copies of records required to be retained by this permit. [District Rule 218]
- 67. For applicable requirements that will become effective during the permit term, RMC Pacific Materials dba CEMEX shall meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement. [District Rule 218]
- 68. Any document submitted to the District pursuant to this permit shall contain certification by the responsible official of truth, accuracy and completeness. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. RMC Pacific Materials dba CEMEX shall promptly, upon discovery, report to the District a material error or omission in these records, reports, plans, or other documents. [District Rule 218]
- 69. RMC Pacific Materials dba CEMEX shall report any violation of any requirement contained in this permit

to the District within 96 hours after such occurrence. The violation report shall include the time intervals, date and magnitude of excess emissions; nature and cause of the excess (if known), corrective actions and preventive measures adopted. [District Rule 218]

70. Upon any administrative or judicial challenge, all the emission limits, specific and general conditions, monitoring, record keeping, and reporting requirements of this permit, except those being challenged, remain valid and must be complied with. [District Rule 218]
71. For this federal operating permit to remain valid through the permit term of five years from the date of issuance, RMC Pacific Materials dba CEMEX shall pay an annual emission fee based upon the requirements of District Rule 308. [District Rule 218]
72. RMC Pacific Materials dba CEMEX shall have available at the facility at all times a copy of this federal operating permit. [District Rule 218]
73. For protection from enforcement action based upon an emergency, as defined in District Rule 218, the responsible official for RMC Pacific Materials dba CEMEX shall submit to the District relevant evidence which demonstrates [District Rule 218]:
 - a) an emergency occurred; and
 - b) that RMC Pacific Materials dba CEMEX can identify the cause(s) of the emergency; and
 - c) that the facility was being properly operated at the time of the emergency; and
 - d) that all steps were taken to minimize the emissions resulting from the emergency; and
 - e) within two working days of the emergency event, RMC Pacific Materials dba CEMEX provided the District with a description of the emergency and any mitigating or corrective actions taken.
74. Upon presentation of credentials, RMC Pacific Materials dba CEMEX shall allow the District, the ARB, the EPA, or an authorized representative, to perform the following [District Rule 218]:
 - a) enter upon the premises where the federal operating permit source is located or in which any records are required to be kept under the terms and conditions of this federal operating permit;
 - b) to have access to and copy any records required to be kept under the terms and conditions of this federal operating permit;
 - c) to inspect any equipment, operation, or process described or required in this federal operating permit; and,
 - d) to sample emissions from the source.
